A pillow assembly (1), particularly for use in the prone position, includes a base portion (2) removably associated with a stabilizing portion (3) by a removable connection means that allows flexibility of the stabilizing portion (3) with respect to the base portion (2). In addition to giving stability to the entire assembly, a particularity of the stabilizing portion (3) is that it allows anyone who needs this to exploit the beneficial properties of odorous or curative emanations of the substances introduced in a micro-perforated cylinder (5) inserted in the stabilizing portion (3) itself.
Description

[0001] The present invention relates to a pillow assembly, particularly for use in the prone position.

[0002] As is known, the position assumed during sleeping affects significantly the quality of sleep especially in relation to breathing.

[0003] A small percentage of people usually sleep in the prone position, i.e. lying on their stomach. In some cases this position is obligatory due to particular health conditions.

[0004] It is known that the prone position makes breathing difficult, especially because of the pillow.

[0005] Some pillows are less stressful than others for sleeping in the prone position, but in general traditional pillows are not suitable for this use and are the source of breathing problems.

[0006] Pillows or similar structures are known which are used by masseurs to allow the subject to lie in the prone position while keeping the head straight, with the face at a hollow or hole, which allows the subject to breathe.

[0007] Those structures are not suitable for use as a pillow for sleeping, because of their dimensions and because they do not allow the subject to vary the position of the head.

[0008] For example, CN201097889 discloses a T-shaped pillow formed in two parts: a back part perpendicular to a head part. The pillow is suitable for sleeping in different postures, on the back and on the two sides, but not in the prone position, because the back part is not suitable for lying the face on it, and the more so the head part.

[0009] The aim of the present invention is to provide a pillow assembly that is especially designed for sleeping in the prone position.

[0010] Within the scope of this aim, an object of the invention is to provide a pillow assembly that ensures adequate free space for the nose and mouth, facilitating breathing.

[0011] Another object of the invention is to provide a pillow that allows to turn one’s head while sleeping without difficulty.

[0012] Another object of the present invention is to provide an assembly which, by virtue of its particular constructive characteristics, is capable of giving the greatest assurances of reliability and safety in use.

[0013] A further object of the present invention is to provide an assembly that can be provided easily by using commonly commercially available elements and materials.

[0014] This aim and these and other objects that will become better apparent hereinafter are achieved by a pillow assembly, particularly for use in the prone position, characterized in that it comprises a base portion removably associated with a stabilizing portion by means of a removable connection means that allows flexibility of the stabilizing portion with respect to the base portion.

[0015] Further characteristics and advantages will become better apparent from the description of preferred but not exclusive embodiments of the invention, illustrated by way of nonlimiting example in the accompanying drawings, wherein:

Figure 1 is a perspective view of the pillow assembly according to the present invention;
Figure 2 is a partially exploded perspective view of the pillow assembly;
Figure 3 is a plan view of the pillow assembly;
Figure 4 is a front elevation view of the assembly;
Figure 5 is a lateral elevation view of the assembly;
Figure 6 schematically illustrates the use of the pillow assembly, according to the present invention.

[0016] With reference to the above figures, the pillow assembly according to the invention, generally designated by the reference numeral 1, has a base portion 2, detachably associated with a stabilizing portion 3, by means of a detachable connection means which allows an oscillating motion and a flexibility of the stabilizing portion with respect to the base portion.

[0017] The stabilizing portion 3 is preferably substantially cylindrical and is wider than the side of the base portion 2, which is substantially shaped like a parallelepiped.

[0018] The stabilizing portion 3 has a cavity 4 adapted to contain a partially micro-perforated cylinder in which it is possible to introduce substances adapted to release emanations capable of passing through the material of which the stabilizing portion 3 is made.

[0019] Preferably, the cavity 4 allows the insertion of a tube 5 which is provided with holes 6 and is closed at the ends by threaded plugs 7.

[0020] The tube 5 is at least partially micro-perforated and is inserted in the stabilizing portion 3 preferably for its entire length.

[0021] The tube 5 can be removed easily in order to be able to clean it, in particular whenever the introduced products are replaced and in any case always after a reasonable period of time.

[0022] The stabilizing portion 3 is associated with the base portion 2 by means of a hook-and-loop fastener, of the type commonly known by the trade name “Velcro”, thus allowing easy disengagement and better flexibility between the two portions.

[0023] Preferably, the two portions are covered with an allergenic materials, preferably pure cotton.

[0024] The stabilizing portion 3 can be covered with merinos wool, in turn covered by a cotton casing.

[0025] The materials used for the base portion, and optionally for the stabilizing portion, are breathable, antibacterial, an allergenic, preferably natural, of the type known to provide the best quality traditional pillows.

[0026] The base portion, on which the face rests, is made of an antibacterial, an allergenic, strong, flexible and recyclable material.
The stabilizing portion can be made of a viscoelastic material but it can also be made of other suitable materials.

Preferably, the tube 5 is of the flexible type, with a micro-perforated part and with the possibility, by rotating it, to vary the direction of the emissions.

The micro-perforation is applied to the entire length and is extended circumferentially through approximately 120°.

Optionally, one of the plugs 7 is provided with a coupling for a small tube 8 that can be connected to a source of filtered air and at variable temperature, the intensity of which can be adjusted easily. The function of the air is to increase the diffusion of the substances contained in the tube 5.

The base portion 2 preferably has a rectangular plan shape with an end part shaped like an isosceles trapezoid.

The isosceles trapezoid part has a short side 9 and two oblique sides 10 that are blended with the sides 11 of the rectangular part, which has a long side 12 that is opposite the short side 9.

The long side 12 is associated with the stabilizing portion 3, while the other sides 9, 10 and 11 are all rounded.

As regards the dimensions, merely by way of indication, the stabilizing portion preferably has a width, i.e., a cylinder height, of approximately 45 cm and a diameter of approximately 12 cm.

The base portion 2 has an extension, i.e., the distance from the long side 12 to the short side 9, of approximately 31 cm and a thickness that can vary from approximately 5 to approximately 9 cm.

This dimension of the thickness can be chosen as a function of the body build of the user.

Advantageously, the base portion 2 can be made of two parts that can be superimposed in order to vary the thickness easily according to the requirements, and in this case two cases of different size are provided.

It is stressed that the use of the pillow assembly according to the present invention is particularly suitable for those who sleep in the prone position, i.e., on their stomach.

In the design of the present pillow assembly, a primary aspect has been to create, with the resting position of the face and with particular attention to the nose and mouth of the sleeping person, a region that has the area of action for breathing in and breathing out that is as open and free as possible.

Another important aspect relates to the fact that, in the prone position, the head is necessarily oriented to the left or to the right and accordingly, once the face has been positioned in the direction in which one wishes to begin to sleep, the present assembly renders the nose completely free of any restriction or deformation of the member on which the face rests and breathing is more open and free.

If one wishes to turn one’s head in the opposite direction, it is sufficient, without performing difficult movements, to change the direction of the face, immediately obtaining the symmetrical position with the same non-penalizing characteristics.

In this case also, nose and mouth breathing are optimum, allowing more serene sleep.

The dimensions and constructive characteristics of the pillow allow the described results.

The cylindrical part of the pillow is provided with a dimension in terms of width that is greater than that of the base on which the face rests, and in this manner it stabilizes the entire structure.

The shape, in which the cylindrical part oscillates with respect to the position of the main body of the base, allows multiple uses of the assembly.

With the body in the supine position, i.e., face up, it is possible to use the cylindrical part of the pillow as a headrest, placing the cylindrical part in the nape of the neck.

When sitting on the bed, it is possible to use the pillow assembly as a backrest, with two possibilities: as a headrest or, by rotating the pillow through 180°, placing the cylindrical part downward, in order to relax the lumbar region.

In the cavity 4, the tube 5 can be used to contain balsamic, curative or scented substances.

The tube 5 can be removed easily to be cleaned and to replace the substances contained therein.

The substances that can be introduced in the tube 5 must be rested in the part that is not micro-perforated, in a downward direction; the substances can be in a natural form, in pellets or drops on sticks wrapped by anallergenic absorbent fibers; it is then possible to rotate the tube, orienting the micro-perforated part in the position that is desired according to the requirements.

As regards posture: in general, always barring few exceptions, sleeping in a supine position or on one’s side is, according to observations, a behavior that varies from peaceful to agitated or disorderly, but in any case entails more movement than one who is used to sleeping in the prone position.

In this last condition, for various reasons, movements are much more limited, despite expressing dependency on a psychological and stress condition.

In the prone position, a high percentage of people unwittingly move the hand close to the face or forehead, although the arm always continues to rest on the mattress: the left hand, if the face is directed to the left, and the right hand if the face is directed to the right.

A particularity that accompanies this unconsciously induced movement is that the hand tends to be clenched (at rest) or, always resting on the mattress, completely open.

The arm that is opposite with respect to the direction of the face assumes, in most cases, a relaxed position, resting along the body.

The pillow assembly can also be used without the stabilizing portion 3.
In practice it has been found that the invention achieves the intended aim and objects, a pillow assembly having been provided which is studied particularly to facilitate breathing and to be comfortable in the prone position.

The pillow assembly according to the invention is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept; all the details may furthermore be replaced with technically equivalent elements.

The materials used, as well as the dimensions, may of course vary according to particular requirements and developments of the art.

Claims

1. A pillow assembly, particularly for use in the prone position, characterized in that it comprises a base portion removably associated with a stabilizing portion by means of a removable connection means that allows flexibility of the stabilizing portion with respect to the base portion.

2. The pillow assembly according to claim 1, characterized in that said stabilizing portion has a substantially cylindrical shape and is wider than the major side of said base portion; said base portion having a substantially parallelepipedal shape.

3. The pillow assembly according to claim 1, characterized in that said stabilizing portion comprises internally a micro-perforated cylinder adapted to contain emanation-emitting substances that are able to pass through the material that constitutes said stabilizing portion.

4. The pillow assembly according to claim 3, characterized in that the micro-perforated tube is inserted in a cavity formed in said stabilizing portion; said tube having holes and being closed by threaded plugs.

5. The pillow assembly according to claim 4, characterized in that said tube is partially micro-perforated and is inserted for its full length in said stabilizing portion; said tube being removable.

6. The pillow assembly according to one or more of the preceding claims, characterized in that said stabilizing portion is associated with said base portion by means of a hook-and-loop fastener.

7. The pillow assembly according to one or more of the preceding claims, characterized in that one of said plugs comprises a coupling for a small tube that can be connected to a filtered air source, the intensity and temperature of said air being easily regulated, said air flowing in said tube to improve the emanations emitted by one or more substances inserted in said tube.

8. The pillow assembly according to one or more of the preceding claims, characterized in that in plan view said base portion has a rectangular shape with an end portion shaped like an isosceles trapezoid; said portion shaped like an isosceles trapezoid having a short side and two oblique sides that are connected to the sides of said rectangular portion; said rectangular portion comprising a long side, which is opposite said short side; said long side is associated with said stabilizing portion.

9. The pillow assembly according to one or more of the preceding claims, characterized in that said sides are at least partially rounded.

10. The pillow assembly according to one or more of the preceding claims, characterized in that said base portion is constituted by two superimposable parts.
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Place of search: The Hague
Date of completion of the search: 28 August 2014
Examiner: Longo dit Operti, T

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